INDEX TO AUTHORS

A

Abramson, Harold A. See WINTERSTEINER and ABRAMSON, 741

Arnold, Audra, and **Luck, James Murray.** Studies on arginine. III. The arginine content of vertebrate and invertebrate muscle, 677

B

Baudisch, Oskar, and **Dyer, Elizabeth.** The *o*-quinone test for cysteine, 485

Benedict, Stanley R., and **Gottschall, Gertrude.** The analysis of whole blood. IV. The determination of glutathione, 729

Bigelow, Newell M. See JACOBS and BIGELOW, 521

Bills, Charles E. See HONEYWELL and BILLS, 71

Bloor, W. R. See SNIDER and BLOOR, 555

Bodansky, Aaron. Phosphatase studies. I. Determination of inorganic phosphate. Beer's law and interfering substances in the Kuttner-Lichtenstein method, 197

Bomskov, Christian. The determination of magnesium in blood with 8-hydroxyquinoline. A note on the paper by Greenberg and Mackey, 17

Bonoff, R. See BODANSKY, 197

Borsook, Henry, and **Huffman, Hugh M.** The free energies of formation of aqueous *d*-alanine, *l*-aspartic acid, and *d*-glutamic acid, 663

Brophy, T. W. See DUNN and BROPHY, 221

Butler, A. W. See DUNN, BUTLER, and DEAKERS, 217

Butler, Allan M., and **Montgomery, Hugh.** The solubility of the plasma proteins. I. Dependence on salt and plasma concentrations in concentrated solutions of potassium phosphate, 173

Butz, Lewis W., and **du Vigneaud, Vincent.** The formation of a homologue of cystine by the decomposition of methionine with sulfuric acid, 135

C

Cassidy, Harold G. See HOLMES, LAVA, DELFS, and CASSIDY, 417

Chanutin, Alfred, and **Kinard, F. W.** The relationship between muscle creatine and creatinine coefficient, 125

Clarke, H. T. See PALMER and CLARKE, 435

Cooper, Mary A. See QUICK and COOPER, 119
Cori, Carl F. See CORI and CORI, 493
Cori, Gerty T., and **Cori, Carl F.** Changes in hexosephosphate, glycogen, and lactic acid during contraction and recovery of mammalian muscle, 493
Csonka, Frank A., and **Nicolet, Ben H.** The preparation of optically active thiohydantoins and the racemization of amino acids as their azlactones, 213

D

Dakin, H. D. β-Amino-*n*-valeric acid, 531
Deakers, T. See DUNN, BUTLER, and DEAKERS, 217
Delfs, Eleanor. See HOLMES, LAVA, DELFS, and CASSIDY, 417
Derbigny, I. A. See SHERMAN and DERBIGNY, 165
Doisy, Edward A. See MACCORQUODALE, THAYER, and DOISY, 327
Donelson, Eva. See HUNSCHER, DONELSON, NIMS, KENYON, and MACY, 507
Dunn, Max S., and **Brophy, T. W.** Decomposition points of the amino acids, 221
—, **Butler, A. W.**, and **Deakers, T.** The synthesis of glycylglycine, 217
Dyer, Elizabeth. See BAUDISCH and DYER, 485

E

Eggert, Carl. See MEYER and EGGERT, 265
Eisenman, Anna J. The effect of temperature on the carbon dioxide absorption curve of human blood, 359
Elderfield, Robert C. See JACOBS and ELDERFIELD, 693
Elvehjem, C. A., Kline, O. L., Keenan, J. A., and **Hart, E. B.** A study of the heat stability of the vitamin B factors required by the chick, 309
—. See KLINE, KEENAN, ELVEHJEM, and HART, 295
—. See STARE and ELVEHJEM, 473
Evans, Herbert M., and **Lepkovsky, Samuel.** The sparing action of fat on vitamin B. IV. Is it necessary for fat to interact with vitamin B in the alimentary canal to exert its sparing effect? 235
— and —. V. The rôle of glycerides of oleic acid, 237
— and —. Vital need of the body for certain unsaturated fatty acids. III. Inability of the rat organism to synthesize the essential unsaturated fatty acids, 231

F

Felton, George E. See FREUDENBERG and FELTON, 657
Field, J. Thomas. See POE and FIELD, 283
Foulger, John H. Two new color tests for hexoses, 207
Freudenberg, Werner. The preparation of sarcolactic acid, 153

Freudenberg, Werner. Studies on carbohydrate metabolism. I. The influence of *d*-glucal and its derivatives, *d*-hydroglucal and *d*-2-glucodesose, on blood sugar, 647

— and **Felton, George E.** Studies on carbohydrate metabolism. II. The rate of metabolism of *d*-2-oxyglucal and styracitol in the rabbit, 657

G

Gaebler, Oliver Henry. The effect of anticoagulants on determinations of inorganic phosphate and protein in plasma, 99

Geraghty, Gladys B., Underhill, F. Aline, Orten, James M., and **Lewis, Robert C.** The use of metal cages in the study of nutritional anemia, 451

Gildea, Edwin F. See Man and Gildea, 43, 61

Gortner, Ross Aiken. See Thor and Gortner, 383

Gottschall, Gertrude. See Benedict and Gottschall, 729

Grant, Gordon A. See Harding and Grant, 629

—. See Harding, Nicholson, and Grant, 625

Greenberg, David M., and **Greenberg, Louis D.** Is there an unknown compound of the nature of calcium citrate present in the blood? 1

— and **Mackey, Myrtle A.** The determination of magnesium in blood with 8-hydroxyquinoline. A reply, 19

Greenberg, Louis D. See Greenberg and Greenberg, 1

H

Hallman, L. F. See Bodansky, 197

Hambleton, A. A Soxhlet type of extraction apparatus for operation at low temperatures under reduced pressure, 289

Harding, Victor John, and **Grant, Gordon A.** Metabolism of galactose. I. Cutaneous blood sugars after galactose ingestion, 629

—, **Nicholson, Thomas Frederick,** and **Grant, Gordon A.** An alternative reagent for the estimation of galactose, 625

Hart, E. B. See Elvehjem, Kline, Keenan, and Hart, 309

—. See Kline, Keenan, Elvehjem, and Hart, 295

Heinbecker, Peter. Ketosis during fasting in Eskimos, 279

Hess, W. C., and **Sullivan, M. X.** The *o*-benzoquinone test for cysteine, 95

Hill, Robert M. The determination of colloid osmotic pressures in small quantities of fluid, 323

Holly, Olive M. See Sandberg and Holly, 547

Holmes, Harry N., Lava, Vicente G., Delfs, Eleanor, and **Cassidy, Harold G.** Comparative studies on the adsorption behavior of crude vitamin A, carotene, and cholesterol, 417

Honeywell, Edna M., and **Bills, Charles E.** Cerevisterol, a sterol accompanying ergosterol in yeast, 71

Huffman, Hugh M. See Borsook and Huffman, 663

Hunscher, Helen A., Donelson, Eva, Nims, Betty, Kenyon, Fanny, and **Macy, Icie G.** Metabolism of women during the reproductive cycle. V. Nitrogen utilization, 507

J

Jacobs, Walter A., and **Bigelow, Newell M.** The strophanthins of *Strophanthus eminii*, 521

— and **Elderfield, Robert C.** The digitalis glucosides. VI. The oxidation of anhydrodihydrodigitoxigenin. The problem of gitoxigenin, 693

K

Kay, H. D. Changes in phosphoric ester content of the red blood cells and the liver in experimental rickets, 85

Keenan, J. A. See Elvehjem, Kline, Keenan, and Hart, 309

—. See Kline, Keenan, Elvehjem, and Hart, 295

Kenyon, Fanny. See Hunscher, Donelson, Nims, Kenyon, and Macy, 507

Kinard, F. W. See Chanutin and Kinard, 125

Kleiner, Israel S., and **Tauber, Henry.** Enzymes of the mammary gland. The presence of glucomaltase in the mammary gland, 241

Kleiner, Israel S. See Tauber and Kleiner, 249

Kline, O. L., Keenan, J. A., Elvehjem, C. A., and **Hart, E. B.** The use of the chick in vitamin B_1 and B_2 studies, 295

—. See Elvehjem, Kline, Keenan, and Hart, 309

L

Langley, Wilson D., Rosenbaum, Myron G., and **Rosenbaum, Maurice M.** The solubility of calcium stearate in solutions containing bile and in water, 271

Lava, Vicente G. See Holmes, Lava, Delfs, and Cassidy, 417

Lepkovsky, Samuel. See Evans and Lepkovsky, 231, 235, 237

Levene, P. A., and **Marker, R. E.** Configurational relationships of methylphenyl-, methylcyclohexyl-, and methylhexylcarbinols and of their homologues. A correction, 321

— and **Yang, Peter S.** Studies on racemization. XII. Action of alkali on polypeptides composed of levo-alanine, 405

Levy, Milton. Equilibria in the formol titration, 767

Lewis, Robert C. See Geraghty, Underhill, Orten, and Lewis, 451

—. See Orten, Underhill, Mugrage, and Lewis, 457, 465

—. See Underhill, Orten, Mugrage, and Lewis, 469

Lineweaver, Hans. Characteristics of oxidation by *Azotobacter*, 375

Luck, James Murray. See Arnold and Luck, 677

M

MacCorquodale, D. W., Thayer, Sidney A., and **Doisy, Edward A.** On the purification and constitution of theelol, 327

Mackey, Myrtle A. See Greenberg and Mackey, 19

Macy, Icie G. See Hunscher, Donelson, Nims, Kenyon, and Macy, 507

Man, Evelyn B., and **Gildea, Edwin F.** The effect of the ingestion of a large amount of fat and of a balanced meal on the blood lipids of normal man, 61

— and —. A modification of the Stoddard and Drury titrimetric method for the determination of the fatty acids in blood serum, 43

Marker, R. E. See Levene and Marker, 321

Massengale, O. N. See McDonald and Massengale, 79

McDonald, Francis G., and **Massengale, O. N.** The antirachitic potency of eggs from hens receiving massive doses of activated ergosterol, 79

Meyer, Arthur E., and **Eggert, Carl.** Iron and copper in liver and liver extracts, 265

Meyer, Curtis E. See du Vigneaud and Meyer, 143

Miyamoto, Sadaichi, and **Schmidt, Carl L. A.** Transference and conductivity studies on solutions of certain proteins and amino acids with special reference to the formation of complex ions between the alkaline earth elements and certain proteins, 335

Montgomery, Hugh. See Butler and Montgomery, 173

Mosher, H. H. Simultaneous study of constituents of urine and perspiration, 781

Mugrage, Edward R. See Orten, Underhill, Mugrage, and Lewis, 457, 465

—. See Underhill, Orten, Mugrage, and Lewis, 469

Myers, Victor C., and **Reid, Eric.** Studies on animal diastases. III. A comparison of several different methods for the quantitative estimation of diastase in blood, 595

—. See Reid and Myers, 607

—. See Reid, Quigley, and Myers, 615

N

Nicholson, Thomas Frederick. See Harding, Nicholson, and Grant, 625

Nicolet, Ben H. An extension and a limitation of the thiocyanate method for the preparation of 2-thiohydantoins, 429

—. See Csonka and Nicolet, 213

Nims, Betty. See HUNSCHER, DONELSON, NIMS, KENYON, and MACY, 507

O

Okey, Ruth, and **Stewart, Dorothy.** Diet and blood cholesterol in normal women, 717

Orten, James M., Underhill, F. Aline, Mugrage, Edward R., and **Lewis, Robert C.** Blood volume studies in cobalt polycythemia, 457

—, —, —, and —. The effect of manganese on cobalt polycythemia, 465

—. See GERAGHTY, UNDERHILL, ORTEN, and LEWIS, 451

—. See UNDERHILL, ORTEN, MUGRAGE, and LEWIS, 469

P

Palmer, J. W., and **Clarke, H. T.** The elimination of bromides from the blood stream, 435

Poe, Charles F., and **Field, J. Thomas.** A biochemical study of the fermentation of rare sugars by members of the colon-*aerogenes* groups of bacteria. I. Trehalose, 283

Q

Quick, Armand J., and **Cooper, Mary A.** The effect of liver injury on the conjugation of benzoic acid in the dog, 119

Quigley, J. P. See REID, QUIGLEY, and MYERS, 615

R

Reid, Eric, and **Myers, Victor C.** Studies on animal diastases. IV. The effect of insulin on the diastatic activity of the blood in diabetes, 607

—, **Quigley, J. P.,** and **Myers, Victor C.** Studies on animal diastases. V. Blood and tissue diastases, with special reference to the depancreatized dog, 615

—. See MYERS and REID, 595

Rising, Mary M., and **Yang, Peter S.** The biuret reaction. III. The biuret reaction of amino acid amides, 755

Rosenbaum, Maurice M. See LANGLEY, ROSENBAUM, and ROSENBAUM, 271

Rosenbaum, Myron G. See LANGLEY, ROSENBAUM, and ROSENBAUM, 271

Russell, Walter C., Taylor, M. W., and **Wilcox, D. E.** The fate of the antirachitic factor in the chicken. II. The effectiveness of the factor administered by mouth and intraperitoneally, 109

S

Sandberg, Marta, and **Holly, Olive M.** On the influence of vitamin B and of iodine on the calcium and phosphorus metabolism of rabbits with hyperplastic thyroids, 547

Schmidt, Carl L. A. See MIYAMOTO and SCHMIDT, 335

Sharlit, Herman. A method for the quantitative estimation of indoxyl compounds in urine, 537

Shear, M. J. See WASHBURN and SHEAR, 21

Sherman, H. C., and **Derbigny, I. A.** Studies on vitamin G (B_2) with special reference to protein intake, 165

Snider, Ruth H., and **Bloor, W. R.** Fatty acids of liver lecithin, 555

Stare, F. J., and **Elvehjem, C. A.** Cobalt in animal nutrition, 473

Stewart, Dorothy. See OKEY and STEWART, 717

Sullivan, M. X. See HESS and SULLIVAN, 95

T

Tauber, Henry. The chemical nature of emulsin, rennin, and pepsin, 257

— and **Kleiner, Israel S.** A method for the determination of monosaccharides in the presence of disaccharides and its application to blood analysis, 249

—. See KLEINER and TAUBER, 241

Taylor, M. W. See RUSSELL, TAYLOR, and WILCOX, 109

Thayer, Sidney A. See MACCORQUODALE, THAYER, and DOISY, 327

Thor, Clifford J. B., and **Gortner, Ross Aiken.** Sulfur in proteins. V. The effect of alkalies upon cystine, with special reference to the action of sodium hydroxide, 383

Torigoe, Masamichi. See TWEEDY and TORIGOE, 155

Tweedy, Wilbur R., and **Torigoe, Masamichi.** Chemical studies on a parathyroid hormone, 155

U

Underhill, F. Aline, Orten, James M., Mugrage, Edward R., and **Lewis, Robert C.** The effect of the prolonged feeding of a milk-iron-copper diet to rats, 469

—. See GERAGHTY, UNDERHILL, ORTEN, and LEWIS, 451

—. See ORTEN, UNDERHILL, MUGRAGE, and LEWIS, 457, 465

V

Vickery, Hubert Bradford, and **White, Abraham.** The use of cysteine cuprous mercaptide in the determination of cystine, 701

du Vigneaud, Vincent, and **Meyer, Curtis E.** The temporary formation of the azlactone ring in the racemization of acyl derivatives of amino acids with acetic anhydride, 143

—. See BUTZ and DU VIGNEAUD, 135

W

Washburn, Martha L., and **Shear, M. J.** Composition of bone. XIII. Direct gravimetric determination of Ca, Mg, and PO_4, 21

White, Abraham. See VICKERY and WHITE, 701
White, H. L. A micro conductance cell, 445
Wilcox, D. E. See RUSSELL, TAYLOR, and WILCOX, 109
Wintersteiner, Oskar, and **Abramson, Harold A.** The isoelectric point of insulin. Electrical properties of adsorbed and crystalline insulin, 741

Y

Yang, Peter S. See LEVENE and YANG, 405
—. See RISING and YANG, 755

INDEX TO SUBJECTS

A

Absorption curve:
Carbon dioxide, blood, temperature effect (Eisenman) 359

Acetic anhydride:
Amino acids, acyl derivatives, racemization (du Vigneaud and Meyer) 143

Adsorption:
Insulin, electrical properties (Wintersteiner and Abramson) 741

Alanine:
Levo-, polypeptides composed of, alkali action (Levene and Yang) 405

***d*-Alanine:**
Free energy (Borsook and Huffman) 663

Alimentary canal:
Fat and vitamin B interaction, sparing effect (Evans and Lepkovsky) 235

Alkali:
Cystine, effect (Thor and Gortner) 383
Polypeptides composed of levo-alanine, action (Levene and Yang) 405

Alkaline earth elements:
Proteins and, complex ion formation in solutions of (Miyamoto and Schmidt) 335

Amide:
Amino acid, biuret reaction (Rising and Yang) 755

Amino acid(s):
Acyl derivatives, racemization with acetic anhydride, azlactone ring formation (du Vigneaud and Meyer) 143
Amides, biuret reaction (Rising and Yang) 755
Decomposition points (Dunn and Brophy) 221
Racemization as azlactones (Csonka and Nicolet) 213
Solutions, conductivity (Miyamoto and Schmidt) 335
—, transference (Miyamoto and Schmidt) 335

***β*-Amino-*n*-valeric acid:**
(Dakin) 531

Anemia:
Nutritional, metal cage for studies (Geraghty, Underhill, Orten, and Lewis) 451

Anhydrodihydrodigitoxigenin:
Oxidation (Jacobs and Elderfield) 693
Anticoagulant:
Blood plasma phosphate, inorganic, determination, effect (Gaebler) 99
— — protein, determination, effect (Gaebler) 99
Apparatus:
Extraction, Soxhlet, at low temperatures, reduced pressure (Hambleton) 289
Metal cage, anemia, nutritional, studies (Geraghty, Underhill, Orten, and Lewis) 451
Microconductance cell (White) 445
Arginine:
III (Arnold and Luck) 677
Muscle, invertebrates (Arnold and Luck) 677
—, vertebrates (Arnold and Luck) 677
***l*-Aspartic acid:**
Free energy (Borsook and Huffman) 663
Azotobacter:
Oxidation by (Lineweaver) 575

B

Bacteria:
Aerogenes, sugars, rare, fermentation. I (Poe and Field) 283
Colon and *aerogenes*, trehalose fermentation (Poe and Field) 283
Bacteria—*continued:*
Colon, sugars, rare, fermentation. I (Poe and Field) 283
Beer's law:
Phosphate, inorganic, determination, Kuttner-Lichtenstein method (Bodansky) 197
Benzoic acid:
Conjugation, liver injury effect (Quick and Cooper) 119
***o*-Benzoquinone:**
Cysteine test (Hess and Sullivan) 95
Bile:
Solutions, calcium stearate solubility (Langley, Rosenbaum, and Rosenbaum) 271
Biuret reaction:
III (Rising and Yang) 755
Amino acid amides (Rising and Yang) 755
Blood:
Analysis. IV (Benedict and Gottschall) 729
Bromides, elimination (Palmer and Clarke) 435
Calcium citrate-like compound (Greenberg and Greenberg) 1
Carbon dioxide absorption curve, temperature effect (Eisenman) 359
Cholesterol, diet and, women (Okey and Stewart) 717

Blood—*continued:*
Diastase, depancreatized dog (Reid, Quigley, and Myers) 615
—, determination, methods, comparison (Myers and Reid) 595
—, diabetes, insulin effect (Reid and Myers) 607
Glutathione determination (Benedict and Gottschall) 729
Lipids, balanced meal effect (Man and Gildea) 61
—, fat ingestion effect (Man and Gildea) 61
Magnesium determination, 8-hydroxyquinoline (Bomskov) 17
(Greenberg and Mackey) 19
Sugar, cutaneous, galactose ingestion effect (Harding and Grant) 629
—, determination (Tauber and Kleiner) 249
—, *d*-glucal influence (Freudenberg) 647
—, *d*-2-glucodesose influence (Freudenberg) 647
—, *d*-hydroglucal influence (Freudenberg) 647
Volume, polycythemia, cobalt (Orten, Underhill, Mugrage, and Lewis) 457

Blood cell:
Red, rickets, phosphoric ester (Kay) 85

Blood plasma:
Phosphate, inorganic, determination, anticoagulants, effect (Gaebler) 99
Protein, determination, anticoagulants, effect (Gaebler) 99
—, solubility. I (Butler and Montgomery) 173
—, —, factors affecting (Butler and Montgomery) 173

Blood serum:
Fatty acids, determination, Stoddard-Drury method, modification (Man and Gildea) 43

Bone:
Calcium determination (Washburn and Shear) 21
Composition. XIII (Washburn and Shear) 21
Magnesium determination (Washburn and Shear) 21
Phosphate determination (Washburn and Shear) 21

Bromides:
Blood, elimination (Palmer and Clarke) 435

C

Cage:
Metal, anemia, nutritional, studies (Geraghty, Underhill, Orten, and Lewis) 451

Calcium:
Bone, determination (Washburn and Shear) 21
Determination, bone (Washburn and Shear) 21
Metabolism, hyperplastic thyroid, iodine influence (Sandberg and Holly) 547
—, — —, vitamin B influence (Sandberg and Holly) 547

Calcium citrate:
-Like compound, blood (Greenberg and Greenberg) 1

Calcium stearate:
Solubility, bile solutions (Langley, Rosenbaum, and Rosenbaum) 271
—, water (Langley, Rosenbaum, and Rosenbaum) 271

Carbinols:
Methylcyclohexyl-, and homologues, configurational relationship (Levene and Marker) 321
Methylhexyl-, and homologues, configurational relationship (Levene and Marker) 321
Methylphenyl-, and homologues, configurational relationship (Levene and Marker) 321

Carbohydrate:
Metabolism. I (Freudenberg) 647
II (Freudenberg and Felton) 657

Carbon dioxide:
Absorption curve, blood, temperature effect (Eisenman) 359

Carotene:
Adsorption (Holmes, Lava, Delfs, and Cassidy) 417

Cerevisterol:
(Honeywell and Bills) 71

Chemical constitution:
Methylcyclohexylcarbinols and homologues (Levene and Marker) 321
Methylhexylcarbinols and homologues (Levene and Marker) 321
Methylphenylcarbinols and homologues (Levene and Marker) 321
Theelol (MacCorquodale, Thayer, and Doisy) 327

Cholesterol:
Adsorption (Holmes, Lava, Delfs, and Cassidy) 417
Blood, diet and, women (Okey and Stewart) 717

Cobalt:
Nutrition (Stare and Elvehjem) 473
Polycythemia, blood volume (Orten, Underhill, Mugrage, and Lewis) 457
—, manganese effect (Orten, Underhill, Mugrage, and Lewis) 465

Colloid:
Osmotic pressure determination (Hill) 323
Colon:
Bacteria, sugars, rare, fermentation. I (Poe and Field) 283
Conductance cell:
Micro- (White) 445
Conductivity:
Amino acid solutions (Miyamoto and Schmidt) 335
Protein solutions (Miyamoto and Schmidt) 335
Copper:
Liver (Meyer and Eggert) 265
— extracts (Meyer and Eggert) 265
-Milk-iron diet, effect (Underhill, Orten, Muggrage, and Lewis) 469
Creatine:
Muscle, creatinine coefficient, relationship (Chanutin and Kinard) 125
Creatinine:
Coefficient, creatine, muscle, relationship (Chanutin and Kinard) 125
Cysteine:
o-Benzoquinone test (Hess and Sullivan) 95
o-Quinone test (Baudisch and Dyer) 485
Cysteine cuprous mercaptide:
Cystine determination (Vickery and White) 701
Cystine:
Alkali effect (Thor and Gortner) 383
Determination, cysteine cuprous mercaptide (Vickery and White) 701
Homologue, methionine decomposition with sulfuric acid, formation (Butz and du Vigneaud) 135
Sodium hydroxide effect (Thor and Gortner) 383

D

Decomposition point:
Amino acids (Dunn and Brophy) 221
Desose:
d-2-Gluco-, blood sugar, influence (Freudenberg) 647
Diabetes:
Blood diastase, insulin effect (Reid and Myers) 607
Diastase, blood, insulin effect (Reid and Myers) 607
Diastase:
Animal. III (Myers and Reid) 595
IV (Reid and Myers) 607
V (Reid, Quigley, and Myers) 615
Blood, depancreatized dog (Reid, Quigley, and Myers) 615
—, determination, methods, comparison (Myers and Reid) 595

Diastase—*continued:*
Blood, diabetes, insulin effect (Reid and Myers) 607
Determination, blood, methods, comparison (Myers and Reid) 595
Tissue, depancreatized dog (Reid, Quigley, and Myers) 615
Diet:
Blood cholesterol, women, relation (Okey and Stewart) 717
Copper-iron-milk, effect (Underhill, Orten, Mugrage, and Lewis) 469
Fat in, blood lipids, effect (Man and Gildea) 61
Iron-copper-milk, effect (Underhill, Orten, Mugrage, and Lewis) 469
Milk-iron-copper, effect (Underhill, Orten, Mugrage, and Lewis) 469
See also Food, Nutrition.
Digitalis:
Glucosides. VI (Jacobs and Elderfield) 693
Digitoxigenin:
Anhydrodihydro-, oxidation (Jacobs and Elderfield) 693
Disaccharides:
Monosaccharide determination in presence of (Tauber and Kleiner) 249

E

Egg:
Antirachitic potency, ergosterol, activated, effect (McDonald and Massengale) 79
Electrical properties:
Insulin, adsorbed (Wintersteiner and Abramson) 741
—, crystalline (Wintersteiner and Abramson) 741
Emulsin:
Chemistry (Tauber) 257
Energy:
Free, *d*-alanine (Borsook and Huffman) 663
—, *l*-aspartic acid (Borsook and Huffman) 663
—, *d*-glutamic acid (Borsook and Huffman) 663
Enzyme:
See also Diastase, Emulsin, Glucomaltase, Pepsin, Phosphatase, Rennin.
Equilibrium:
Formol titration (Levy) 767
Ergosterol:
Activated, eggs, antirachitic potency, effect (McDonald and Massengale) 79
Yeast, cerevisterol accompanying (Honeywell and Bills) 71
Eskimo:
Ketosis, fasting (Heinbecker) 279

Excretion:
Bromides (Palmer and Clarke) 435

F

Fasting:
Ketosis, Eskimos (Heinbecker) 279
Fat:
Blood lipids, ingestion effect (Man and Gildea) 61
Vitamin B interaction, alimentary canal, sparing effect (Evans and Lepkovsky) 235
— B-sparing action. IV (Evans and Lepkovsky) 235
V (Evans and Lepkovsky) 237
Fatty acid(s):
Blood serum, determination, Stoddard-Drury method, modification (Man and Gildea) 43
Determination, blood serum, Stoddard-Drury method, modification (Man and Gildea) 43
Lecithin, liver (Snider and Bloor) 555
Unsaturated, essential, synthesis by body (Evans and Lepkovsky) 231
—, vital need. III (Evans and Lepkovsky) 231
Fermentation:
Sugars, rare, *aerogenes* bacteria. I (Poe and Field) 283
—, —, colon bacteria. I (Poe and Field) 283
Fermentation—*continued:*
Trehalose, colon and *aerogenes* bacteria (Poe and Field) 283
Food:
Balanced meal, blood lipids, effect (Man and Gildea) 61
See also Diet, Nutrition.
Formol:
Titration, equilibria (Levy) 767

G

Galactose:
Blood sugar, cutaneous, ingestion effect (Harding and Grant) 629
Determination, reagent (Harding, Nicholson, and Grant) 625
Metabolism. I (Harding and Grant) 629
Gitoxigenin:
(Jacobs and Elderfield) 693
Glucal:
d-Hydro-, blood sugar, influence (Freudenberg) 647
d-2-Oxy-, metabolism (Freudenberg and Felton) 657
***d*-Glucal:**
Blood sugar, influence (Freudenberg) 647
***d*-2-Glucodesose:**
Blood sugar, influence (Freudenberg) 647
Glucomaltase:
Mammary gland (Kleiner and Tauber) 241

Glucosides:
Digitalis. VI (JACOBS and ELDERFIELD) 693
***d*-Glutamic acid:**
Free energy (BORSOOK and HUFFMAN) 663
Glutathione:
Blood, determination (BENEDICT and GOTTSCHALL) 729
Determination, blood (BENEDICT and GOTTSCHALL) 729
Glycerides:
Oleic acid, vitamin B-sparing action (EVANS and LEPKOVSKY) 237
Glycine:
Glycyl-, synthesis (DUNN, BUTLER, and DEAKERS) 217
Glycogen:
Muscle, mammalian, contraction and recovery (CORI and CORI) 493
Glycylglycine:
Synthesis (DUNN, BUTLER, and DEAKERS) 217

H

Heat:
Vitamin B factors, stability (ELVEHJEM, KLINE, KEENAN, and HART) 309
Hexose:
Color tests (FOULGER) 207
Hexosephosphate:
Muscle, mammalian, contraction and recovery (CORI and CORI) 493
Hydantoin:
Thio-, optically active, preparation (CSONKA and NICOLET) 213
2-Thio-, preparation, thiocyanate method (NICOLET) 429
***d*-Hydroglucal:**
Blood sugar, influence (FREUDENBERG) 647
8-Hydroxyquinoline:
Magnesium determination, blood (BOMSKOV) 17
(GREENBERG and MACKEY) 19

I

Indoxyl:
Compounds, determination, urine (SHARLIT) 537
—, urine, determination (SHARLIT) 537
Insulin:
Adsorbed, electrical properties (WINTERSTEINER and ABRAMSON) 741
Blood diastase, diabetes, effect (REID and MYERS) 607
Crystalline, electrical properties (WINTERSTEINER and ABRAMSON) 741
Isoelectric point (WINTERSTEINER and ABRAMSON) 741
Iodine:
Calcium metabolism, hyperplastic thyroid, influence (SANDBERG and HOLLY) 547

Iodine—*continued:*
Phosphorus metabolism, hyperplastic thyroid, influence (Sandberg and Holly) 547
Iron:
Liver (Meyer and Eggert) 265
— extracts (Meyer and Eggert) 265
-Milk-copper diet, effect (Underhill, Orten, Mugrage, and Lewis) 469
Isoelectric point:
Insulin (Wintersteiner and Abramson) 741

K

Ketosis:
Fasting Eskimos (Heinbecker) 279
Kuttner-Lichtenstein:
Phosphate, inorganic, determination (Bodansky) 197

L

Lactic acid:
Muscle, mammalian, contraction and recovery (Cori and Cori) 493
Sarco-, preparation (Freudenberg) 153
Lecithin:
Liver, fatty acids (Snider and Bloor) 555
Lipids:
Blood, balanced meal effect (Man and Gildea) 61
—, fat ingestion effect (Man and Gildea) 61
Liver:
Copper (Meyer and Eggert) 265
Extracts, copper (Meyer and Eggert) 265
—, iron (Meyer and Eggert) 265
Injury, benzoic acid conjugation, effect (Quick and Cooper) 119
Iron (Meyer and Eggert) 265
Lecithin, fatty acids (Snider and Bloor) 555
Phosphoric ester, rickets (Kay) 85
Rickets, phosphoric ester changes (Kay) 85

M

Magnesium:
Blood, determination, 8-hydroxyquinoline (Bomskov) 17
(Greenberg and Mackey) 19
Bone, determination (Washburn and Shear) 21
Determination, blood, 8-hydroxyquinoline (Bomskov) 17
(Greenberg and Mackey) 19
—, bone (Washburn and Shear) 21
Maltase:
Gluco-, mammary gland (Kleiner and Tauber) 241
Mammary gland:
Glucomaltase (Kleiner and Tauber) 241

Manganese:
Polycythemia, cobalt, effect (Orten, Underhill, Mugrage, and Lewis) 465

Metabolism:
Calcium, hyperplastic thyroid, iodine influence (Sandberg and Holly) 547
—, — —, vitamin B influence (Sandberg and Holly) 547
Carbohydrate. I (Freudenberg) 647
II (Freudenberg and Felton) 657
Galactose. I (Harding and Grant) 629
d-2-Oxyglucal (Freudenberg and Felton) 657
Phosphorus, hyperplastic thyroid, iodine influence (Sandberg and Holly) 547
—, — —, vitamin B influence (Sandberg and Holly) 547
Reproductive cycle, women. V (Hunscher, Donelson, Nims, Kenyon, and Macy) 507
Styracitol (Freudenberg and Felton) 657

Methionine:
Decomposition, sulfuric acid, cystine homologue formation (Butz and du Vigneaud) 135

Methylcyclohexylcarbinols:
Configurational relationship (Levene and Marker) 321
Homologues, configurational relationship (Levene and Marker) 321

Methylhexylcarbinols:
Configurational relationship (Levene and Marker) 321
Homologues, configurational relationship (Levene and Marker) 321

Methylphenylcarbinols:
Configurational relationship (Levene and Marker) 321
Homologues, configurational relationship (Levene and Marker) 321

Milk:
-Iron-copper diet, effect (Underhill, Orten, Mugrage, and Lewis) 469

Monosaccharide:
Determination, disaccharide presence (Tauber and Kleiner) 249

Muscle:
Creatine, creatinine coefficient, relationship (Chanutin and Kinard) 125
Invertebrates, arginine (Arnold and Luck) 677
Mammalian, glycogen, contraction and recovery (Cori and Cori) 493

Muscle—*continued:*
Mammalian, hexosephosphate, contraction and recovery (Cori and Cori) 493
—, lactic acid, contraction and recovery (Cori and Cori) 493
Vertebrates, arginine (Arnold and Luck) 677

N

Nitrogen:
Utilization, reproductive cycle (Hunscher, Donelson, Nims, Kenyon, and Macy) 507
Nutrition:
Cobalt in (Stare and Elvehjem) 473

O

Oleic acid:
Glycerides, vitamin B-sparing action (Evans and Lepkovsky) 237
Osmotic pressure:
Colloid, determination (Hill) 323
Oxidation:
Azotobacter (Lineweaver) 575
d-2-**Oxyglucal:**
Metabolism (Freudenberg and Felton) 657

P

Pancreatectomy:
Diastase, blood (Reid, Quigley, and Myers) 615
—, tissue (Reid, Quigley, and Myers) 615
Parathyroid:
Hormone, chemistry (Tweedy and Torigoe) 155
Pepsin:
Chemistry (Tauber) 257
Perspiration:
Constituents, urine and (Mosher) 781
Phosphatase:
I (Bodansky) 197
Phosphate:
Bone, determination (Washburn and Shear) 21
Determination, bone (Washburn and Shear) 21
Inorganic, blood plasma, determination, anticoagulants, effect (Gaebler) 99
—, determination, blood plasma, anticoagulants, effect (Gaebler) 99
—, —, Kuttner-Lichtenstein method (Bodansky) 197
Phosphoric ester:
Blood cell, red, rickets (Kay) 85
Liver, rickets (Kay) 85
Phosphorus:
Metabolism, hyperplastic thyroid, iodine influence (Sandberg and Holly) 547
—, — —, vitamin B influence (Sandberg and Holly) 547
Polycythemia:
Cobalt, blood volume (Orten, Underhill, Mugrage, and Lewis) 457

Polycythemia—*continued:*
Cobalt, manganese effect (Orten, Underhill, Mugrage, and Lewis) 465
Polypeptide:
Lævo-alanine-containing, alkali action (Levene and Yang) 405
Protein(s):
Alkaline earth elements and, complex ion formation in solutions of (Miyamoto and Schmidt) 335
Blood plasma, determination, anticoagulants, effect (Gaebler) 99
— —, solubility. I (Butler and Montgomery) 173
— —, —, factors affecting (Butler and Montgomery) 173
Determination, blood plasma, anticoagulants, effect (Gaebler) 99
Intake, vitamin G and (Sherman and Derbigny) 165
Solutions, conductivity (Miyamoto and Schmidt) 335
—, transference (Miyamoto and Schmidt) 335
Sulfur. V (Thor and Gortner) 383

Q

Quinoline:
8-Hydroxy-, magnesium determination, blood (Bomskov) 17
(Greenberg and Mackey) 19
Quinone:
o-Benzo-, cysteine test (Hess and Sullivan) 95
***o*-Quinone:**
Cysteine test (Baudisch and Dyer) 485

R

Rennin:
Chemistry (Tauber) 257
Reproduction:
Metabolism, women. V (Hunscher, Donelson, Nims, Kenyon, and Macy) 507
Nitrogen utilization (Hunscher, Donelson, Nims, Kenyon, and Macy) 507
Rickets:
Antirachitic factor, fate in chicken. II (Russell, Taylor, and Wilcox) 109
— —, intraperitoneal administration (Russell, Taylor, and Wilcox) 109
— —, oral administration (Russell, Taylor, and Wilcox) 109
— potency, eggs, ergosterol, activated, effect (McDonald and Massengale) 79
Blood cell, red, phosphoric ester (Kay) 85
Liver, phosphoric ester (Kay) 85
Phosphoric ester, blood cell, red (Kay) 85
— —, liver (Kay) 85

S

Sarcolactic acid:
Preparation (FREUDENBERG) 153
Sex:
Hormone. *See also* Theelol.
Sodium hydroxide:
Cystine, effect (THOR and GORTNER) 383
Soxhlet:
Extraction apparatus, at low temperatures, reduced pressure (HAMBLETON) 289
Sterol:
Cerevisterol, yeast ergosterol accompaniment (HONEYWELL and BILLS) 71
Stoddard-Drury:
Fatty acids, determination, blood serum, modification (MAN and GILDEA) 43
Strophanthin:
Strophanthus eminii (JACOBS and BIGELOW) 521
Strophanthus eminii:
Strophanthins (JACOBS and BIGELOW) 521
Styracitol:
Metabolism (FREUDENBERG and FELTON) 657
Sugar(s):
Blood, cutaneous, galactose ingestion effect (HARDING and GRANT) 629
—, *d*-glucal influence (FREUDENBERG) 647
—, *d*-2-glucodesose influence (FREUDENBERG) 647
—, *d*-hydroglucal influence (FREUDENBERG) 647
Sugar(s)—*continued:*
Rare, fermentation by *aerogenes* bacteria. I (POE and FIELD) 283
—, — — colon bacteria. I (POE and FIELD) 283
Sulfur:
Proteins. V (THOR and GORTNER) 383

T

Temperature:
Carbon dioxide absorption curve, blood, effect (EISENMAN) 359
Theelol:
Constitution (MACCORQUODALE, THAYER, and DOISY) 327
Purification (MACCORQUODALE, THAYER, and DOISY) 327
Thiocyanate:
2-Thiohydantoins, preparation (NICOLET) 429
Thiohydantoin:
Optically active, preparation (CSONKA and NICOLET) 213
2-Thiohydantoin:
Preparation, thiocyanate method (NICOLET) 429
Thyroid:
Hyperplastic, calcium metabolism, iodine influence (SANDBERG and HOLLY) 547
—, — —, vitamin B influence (SANDBERG and HOLLY) 547

Thyroid—*continued:*
Hyperplastic, phosphorus metabolism, iodine influence (Sandberg and Holly) 547
—, — —, vitamin B influence (Sandberg and Holly) 547
Tissue:
Diastase, depancreatized dog (Reid, Quigley, and Myers) 615
Transference:
Amino acid solutions (Miyamoto and Schmidt) 335
Protein solutions (Miyamoto and Schmidt) 335
Trehalose:
Fermentation, colon and *aerogenes* bacteria (Poe and Field) 283

U

Urine:
Constituents, perspiration and (Mosher) 781
Indoxyl compounds, determination (Sharlit) 537

V

Valeric acid:
β-Amino-*n*- (Dakin) 531
Vital need:
Fatty acids, unsaturated. III (Evans and Lepkovsky) 231
Vitamin:
A, crude, adsorption (Holmes, Lava, Delfs, and Cassidy) 417
B, calcium metabolism, hyperplastic thyroid, influence (Sandberg and Holly) 547
— factors, heat stability (Elvehjem, Kline, Keenan, and Hart) 309
—, fat interaction, alimentary canal, sparing effect (Evans and Lepkovsky) 235
—, phosphorus metabolism, hyperplastic thyroid, influence (Sandberg and Holly) 547
B-sparing action, fat. IV (Evans and Lepkovsky) 235
V (Evans and Lepkovsky) 237
— —, oleic acid glycerides (Evans and Lepkovsky) 237
— effect, fat interaction, alimentary canal (Evans and Lepkovsky) 235
B_1, chick for study (Kline, Keenan, Elvehjem, and Hart) 295
B_2, chick for study (Kline, Keenan, Elvehjem, and Hart) 295
—. *See also* Vitamin G.
G, protein intake, and (Sherman and Derbigny) 165

W

Water:
Calcium stearate solubility (LANGLEY, ROSENBAUM, and ROSENBAUM) 271

Y

Yeast:
Ergosterol, cerevisterol accompanying (HONEYWELL and BILLS) 71